REMARKS

Claims 1, 3-12, 14-22, 46-47, 50-54, 59, 60, 62-65 and new claims 66-73 are pending in this application. Claims 2, 13, 24-44, 48 and 61 were previously cancelled, and claims 23, 45, 49, 55-58, and 62 are cancelled here. Claims 12, 14-22, 59-60 and 63-65 have been withdrawn from consideration.

Amendments to claims 1 and 12 (withdrawn) finds support from paragraph [0027] of the published application which states:

> [0027] .... In another embodiment, the method of the present invention results in the formation of a membrane or film of one or more layers of highly absorptive particulate materials on the soil surface, unwanted vegetation surface, or the surface of other plant-producing substrates.

The selection of colored particles in part c of claim 1 finds support in paragraph [0033] of the published application which states:

> [0033] (T)he particulate materials contain particles of various colors, so that when the particulate materials are applied to a substrate (soil, unwanted vegetation or a plant-producing substrate) the spectrum of reflected light or heat exchange from the substrate is altered. Such colored particles may non-reflective.

The selection of iron oxide for the colored particles in claim 72 finds support in paragraph [0099] of the published application which states:

> [0099] These data indicate that the application of cottonseed oil emulsified with kaolin with/without iron oxide kills vegetation and the addition of iron oxide tends to enhance efficacy.

Rejection over Levy in view of Ascione

Claims 1, 3-5, 10, 45-47 and 49-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Levy (US 6,001,382) as evidenced by Ascione (US 5,670,137). Claim 1, as now amended, requires colored particles. Colored particles are pigments. The Examiner notes that Levy teaches use of up to 0.9% of an inorganic pigment such as titanium dioxide. Titanium dioxide is white. The Examiner noted Levy taught use of dyes. In column 16 lines 63-67 Levy states his components can combined with a variety of materials including dyes. A dye is a colored substance that is generally applied as a solution and that has an affinity to the substrate to which it is being applied. The word "dye" is defined in Websters Unabridged Dictionary of the English Language, Random House Inc. (2001) as "a coloring material or matter, a liquid

containing coloring matter for imparting a particular hue to cloth, paper, etc ..." The American Heritage College Dictionary, Fourth Ed., Houghton Mifflin Company (2002) defines "dye" as "a substance used to color materials." In contrast with a dye, a pigment generally is insoluble, and has no affinity for the substrate. Applicants invention comprises white particles, an oil, and colored particles (a solid pigment). Both dyes and pigments appear to be colored because they absorb some wavelengths of light preferentially. However, teaching a dye does not teach or suggest a colored pigment. Ascione does not remedy this deficiency of Levy, as Ascione also teaches use of a dye – see for example claim 7. Therefore the references, individually or in combination, do not teach colored particles as recited by claim 1.

Additionally, Levy is used to treat water columns or land about to be flooded. Claim 1 recites the composition be present on a plant producing substrate such as soil and be present in a particular thickness. This thickness is not taught or suggested by Levy.

For either reason, as the combination does not teach the limitations of claim 1, applicants respectfully request that this rejection be reconsidered and be withdrawn.

Rejection over Iijima

Claims 1, 4, 5, 45-47 and 52-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Iijima et al. (4,948,589).

As stated in the Abstract, Iijima teaches:

> A granular composition for a ruminant containing as a main component choline or a physiologically acceptable derivative thereof, wherein the composition is prepared by (1) granulating the choline or it derivative having an average particle size of 100 .mu.m or less and a maximum particle size of 150 .mu.m or less, an excipient having an average particle size of 10 .mu.m or less and a maximum particle size of 20 .mu.m or less, and a hydrophobic binder under a relative humidity of 10% or less by using an agitation granulator, followed by cooling, separating and classifying the resultant granules to obtain spherical granules having a particle size of 0.5 to 2.5 mm ...

As stated in claim 4 of Iijima, the excipient is magnesium oxide or a mixture of magnesium oxide and at least one component selected from the group consisting of talc, calcium carbonate, magnesium carbonate, dibasic calcium phosphate, and calcium phosphate.

Claim 1 as amended recites the particulate material (a) have a size under ten microns and that the composition be disposed as a film over a plant producing media. In Iijima, CHOLINE is

provided having a particle size of 100 μm or less. An excipient is provided having an average particle size of 10 μm or less. But the two are combined with binders to form millimeter-sized granules. Ten micron-sized particles bound into much bigger granules do not meet the size ten micron limitation of claim 1. Further, the composition in claim 1 as amended is present as a film of thickness between 1 μ and 5 mm disposed over a plant-producing substrate. The composition of Iijima is animal food, and Iijima's granules do not break up until ingested by animals.

Additionally, Iijima does not teach inclusion of a colored particles as recited by amended claim 1.

For either reason, as the combination does not teach the limitations of claim 1, applicants respectfully request that this rejection be reconsidered and be withdrawn.

Rejection over Puterka in view of Jackson and Walker.

Claims 1, 3-11, 45-47 and 49-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Puterka et al. (WO 98/38867) in view of Jackson et al. (US 2,821,500) and Walker (US 6,110,866). Puterka discloses a method for protecting surfaces from arthropod infestation which involves treating the surface with an effective amount of finely divided calcined kaolins, hydrophobic calcined kaolins, hydrous kaolins, hydrophobic hydrous kaolins, hydrophobic calcium carbonates, calcium carbonates or mixtures thereof. These minerals of Puterka are bright white reflective particles. Puterka states (see claim 9) this material can be slurried with a low boiling organic liquid.

The Examiner notes that Puterka teaches siloxane-treated kaolin. The Examiner does not mention that Puterka teaches use of low boiling oils. Instead, the Examiner opines that Translink® 77 meets the claims because Translink® 77 is a kaolin with a siloxane coating which is an organic non-vegetable non-fuel high boiling oil. Applicants disagree for three separate reasons.

First, Translink® 77 is a product whose surfaces are coupled with a silane agent with vinyl functional groups. Polymerized siloxanes with organic side chains are commonly known as silicones or as polysiloxanes. A typical example is polydimethylsiloxane, where two methyl groups attach to each silicon atom to form $-[Si(CH3)_2O-]_n$. But the Examiner shows no evidence of the length of the siloxane polymers (the number "n" in the above formula) on Translink® 77.

If n=1 and the surface of Translink® 77 is treated with only a monolayer of an alkyl siloxane, can this surface-bound monolayer be called an oil?

Second and more importantly, the Examiner equates the siloxane and silicon oil on Puterka's clay to an organic high boiling oil as recited in claim 1. Silicone oils (polymerized siloxanes) are silicon analogues of carbon based organic compounds, and can form (relatively) long and complex molecules based on silicon rather than carbon. Chains are formed of alternating silicon-oxygen atoms (...Si-O-Si-O-Si...) or siloxane which is inorganic, rather than carbon atoms (...C-C-C-C...) which are organic. The organic side chains confer hydrophobic properties while the -Si-O-Si-O- backbone is purely inorganic. The Examiner in his assertion that Translink® 77 alone anticipates claims is therefor reading out of claim 1 the word organic as it pertains to the high boiling oil.

Third, while not at issue with the composition claims, the composition as a film on soil has a purpose of reducing unwanted seed germination. The material of Translink® 77 is bound to the clay. Paragraph [0077] of the instant application clearly states Translink® 77 is not useful in that capacity. Indeed, Example 4 of the instant application compares the efficacy of Translink® 77 alone versus the efficacy of Translink® 77 applied in combination with a high boiling oil, finding that a coating of Translink® 77 alone was ineffective but a coating of Translink® 77 with oil was effective.

Additionally, Puterka does not teach use of colored particles. Puterka teaches use only of white particles. The Examiner combines Puterka with Jackson, stating Jackson teaches oil-coated toxicants (insecticides) with granules where a dye of any color can be used. The Examiner pointed out similarities in the compositions of Puterka and Jackson, perhaps to provide a motivation for combining these references. The Examiner points out that Jackson teaches use of oyster shells, but ignores the huge particle size (3-100 mesh) of Jackson's granules. Jackson also teaches a number of oils which are useful.

As explained in detail in the argument above pertaining to Levy, a dye is not colored particles. A dye is a colorant that can adhere to certain substrates to provide a hue. Therefore, a teaching of a dye does not anticipate the claims 1, 6, 7, or 72.

But an even more basic question is where does the Examiner find motivation to include a dye from Jackson into the white particles of Puterka? The Examiner stated that Jackson teaches

"that addition of the dye acts as a color indicator for thoroughness of distribution of the liquid or semi-solid coating material upon the particles and confers attractiveness in appearance to the user and renders the particles more conspicuous to the human eye," citing column 6 lines 64-73. Jackson also in the Examiner-cited lines states that the dye facilitates distinguishment of the insecticidal composition from the surfaces on which it lies. The law is well established.

> It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition to be used for the very same purpose.

But use of pigments of Jackson might compromise the purpose of the composition of Puterka, who states on page 5 that his compositions "mak(e) the surface become unrecognizable by feel, sight or otherwise and/or unpalatable or otherwise unsuitable as a food source or for colonization by arthropod pests failure to recognize the particle-altered surface or otherwise." Adding pigment may compromise the effect of Puterka's composition by making the surfaces recognizable by sight.

For any of the above reasons, as the combination does not teach the limitations of claim 1, applicants respectfully request that this rejection be reconsidered and be withdrawn.

As noted previously, the Examiner did not apparently use Jackson for oils. Jackson teaches a number of oils which are useful. As Jackson explains in column 5 lines 6-13, that "the oil will serve its major purposes: to carry the toxicant in true or colloidal solution or dispersion, (and) to cause the various ingredients to stick to the granules of the solid carrier material." But, the purpose of Puterka was to provide arthropod control without use of toxicants:

> There is still a need for an effective nontoxic method for protecting surfaces from arthropod infestation based on particulate materials that are not considered harmful to mammals, birds, fish, beneficial arthropods, and the environment.

The purpose of Jackson's oil is to carry toxicants and other adjuvants which Jackson wants to stick to his granules. Puterka's composition contains no toxicants nor adjuvants Puterka wishes to have stick to his particles. There is therefore no motivation to borrow oils from Jackson to combine with the particles of Puterka.

As near as can be understood, the Examiner uses Walker to provide salts and additives to the combination of Puterka and Jackson to obviate the salts mentioned in claim 1 (before the instant amendment). Walker teaches in his abstract:

> The agricultural compositions are prepared by a process comprising mixing together nonionic polyglycol ethers, or oxidation products thereof, and a carrier material. The carrier typically comprises an aqueous or non-aqueous liquid solvent or a solid core material, such as a fertilizer.

This Walker reference therefore appears moot with respect to the currently pending claim 1 as it does not contain any dyes or colored particles.

The Examiner in this rejection included claims 6 and 7. Claims 6 and 7 recite combinations of specific colored particles that are not taught in the references nor mentioned in the office action. The Examiner stated his position that "it is merely judicious selection of known colorants, whether in the form of graphite or pigments that absorb in the red, blue or green, for example, by one of ordinary skill in the art, to add to the composition to confer the desired properties in the absence of evidence to the contrary." We think this means the Examiner thinks the pigments recited in claims 6 and 7 are not patentable as they are pigments known to b cabable of doing what Jackson said dyes are for. Again, the Examiner stated that Jackson teaches "that addition of the dye acts as a color indicator for thoroughness of distribution of the liquid or semi-solid coating material upon the particles and confers attractiveness in appearance to the user and renders the particles more conspicuous to the human eye," citing column 6 lines 64-73. Jackson also in the Examiner-cited lines states that the dye facilitates distinguishment of the insecticidal composition from the surfaces on which it lies. But, as described in paragraph [0099], test data indicate that the application of cottonseed oil emulsified with kaolin with/without iron oxide kills vegetation and the addition of iron oxide tends to enhance efficacy. At least some pigments have a beneficial effect on the composition of claim 1. Pigments used for the purposes of Jackson are not appropriate for the particles of Puterka and further may defeat the purpose and utility of Puterka. Therefore, this rejection of previously pending claims 6 and 7 appears to be error.

Rejection over Levy in view of Puterka and Walker.

Claims 1, 3-10, 45-47 and 49-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy in view of Puterka (WO 98/38867) and Walker. The Examiner uses Levy as previously discussed, and combines this primary reference with Puterka to provide teaching of calcined clays and Walker to provide teaching of salts and colorants.

Claim 1, as now amended, requires colored particles. Colored particles are pigments. The Examiner notes in this rejection that Levy teaches metal oxides, citing claim 1. The only metal oxide taught by Levy is an inorganic pigment such as titanium dioxide. The Examiner states at the bottom of page 14 that "the particulate material can further comprise titanium dioxide which is a pigment or colored particle." From Wikipedia,

> "Titanium dioxide, also known as titanium(IV) oxide or titania, is the naturally occurring oxide of titanium, chemical formula TiO2. When used as a pigment, it is called titanium white, Pigment White 6, or CI 77891."

Applicants respectfully request the Examiner concede that itanium dioxide is white and that white is not "colored."

The Examiner noted Levy taught use of dyes. In column 16 lines 63-67 Levy states his components can combined with a variety of materials including dyes. A dye is a colored substance that is generally applied as a solution and that has an affinity to the substrate to which it is being applied. The word "dye" is defined in Websters Unabridged Dictionary of the English Language, Random House Inc. (2001) as "a coloring material or matter, a liquid containing coloring matter for imparting a particular hue to cloth, paper, etc ..." The American Heritage College Dictionary, Fourth Ed., Houghton Mifflin Company (2002) defines "dye" as "a substance used to color materials." In contrast with a dye, a pigment generally is insoluble, and has no affinity for the substrate. Applicants invention comprises white particles, an oil, and colored particles (a solid pigment). Both dyes and pigments appear to be colored because they absorb some wavelengths of light preferentially. However, teaching a dye does not teach or suggest a colored pigment, nor in particular the pigments recited in claims 6, 7, or 72.

Puterka similarly does not teach colored particles.

The Examiner appears to also rely on Walker to provide teaching of salts and colorants. But the deficiency of Levy with respect to colored particles is identical to the deficiency of Walker. A dye is not colored particles.

Therefore, as the combination does not teach the limitations of claim 1, applicants respectfully request that this rejection be reconsidered and be withdrawn.

Double patenting over USP 7018643

The Examiner rejected claims for non-statutory obvious-type double patenting over USP 7018643. Applicants respectfully request that the Examiner reconsider this rejection in view of the amemdments to claim 1. USP 7018643 does not appear to teach colored particles. Again, titanium dioxide is white.

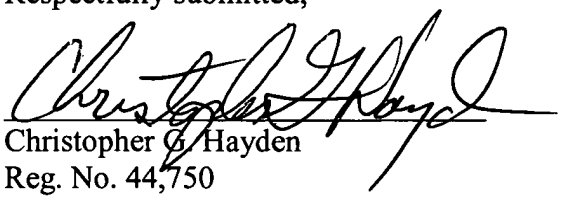
The Examiner rejected claims for non-statutory obvious-type double patenting over USP 6060521. Applicants also request that the Examiner reconsider this rejection in view of the amendments and arguments made here.

Conclusion

As each rejection to claim 1 as amended has been conclusively traversed, Applicants respectfully request the Examiner reconsider the pending claims.

A request for a one month extension and fee therefor accompany this submission. No other fees are believed due. However, the Commissioner is authorized by this paper to charge any additional fees during the entire pendency of this application, including any required extension of time fees, to Hayden Stone PLLC Deposit Account No. 50-3975.

Respectfully submitted,

Date December 12, 2008 By: 

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